

# DANPAL® ROOFING SYSTEMS

Modular Glazing  
Solution for Roofs



SKYLIGHTS



OUTDOOR



# MODULAR GLAZING SOLUTION FOR ROOFING

SINCE DANPAL® FIRST PIONEERED THE CONCEPT OF MECHANICALLY LOCKED POLYCARBONATE ROOFING, THEIR SYSTEMS HAVE TAKEN THE ARCHITECTURAL WORLD BY STORM WITH OUTSTANDING TECHNICAL AND AESTHETIC FEATURES. THE LARGE VARIETY OF COLOURS, FINISHES AND SPECIAL EFFECTS PROVIDE A DAZZLING ARRAY OF CREATIVE OPTIONS.

## Take daylighting to another level

Danpal® Roofing System is a translucent dry glazed system available in a variety of configurations for various types of structures. The engineering and design flexibility of the system comes from its substantial range of snap-on dry-glazed connectors, made from either polycarbonate or aluminium.

Sports Complex, Guanzhou China | Danpal® Roofing System | Architect: Paul Andreu & Serge Carillion, ADPI Architecte



# ROOFING SYSTEMS RANGE

## MADE WITH THE LATEST MICROCELL TECHNOLOGY - FOR TRANSLUCENCY AND STRENGTH

Danpal® Roofing systems are made with Microcell technology - the latest and most advanced system for architectural daylighting applications - ensuring long-term service capabilities. The system is suitable for wide range of weather conditions and offers high impact resistance. It is available in a large variety of color combinations and finishes.

## FOUR ROOFS SYSTEMS, TWO MODES OF INSTALLATION

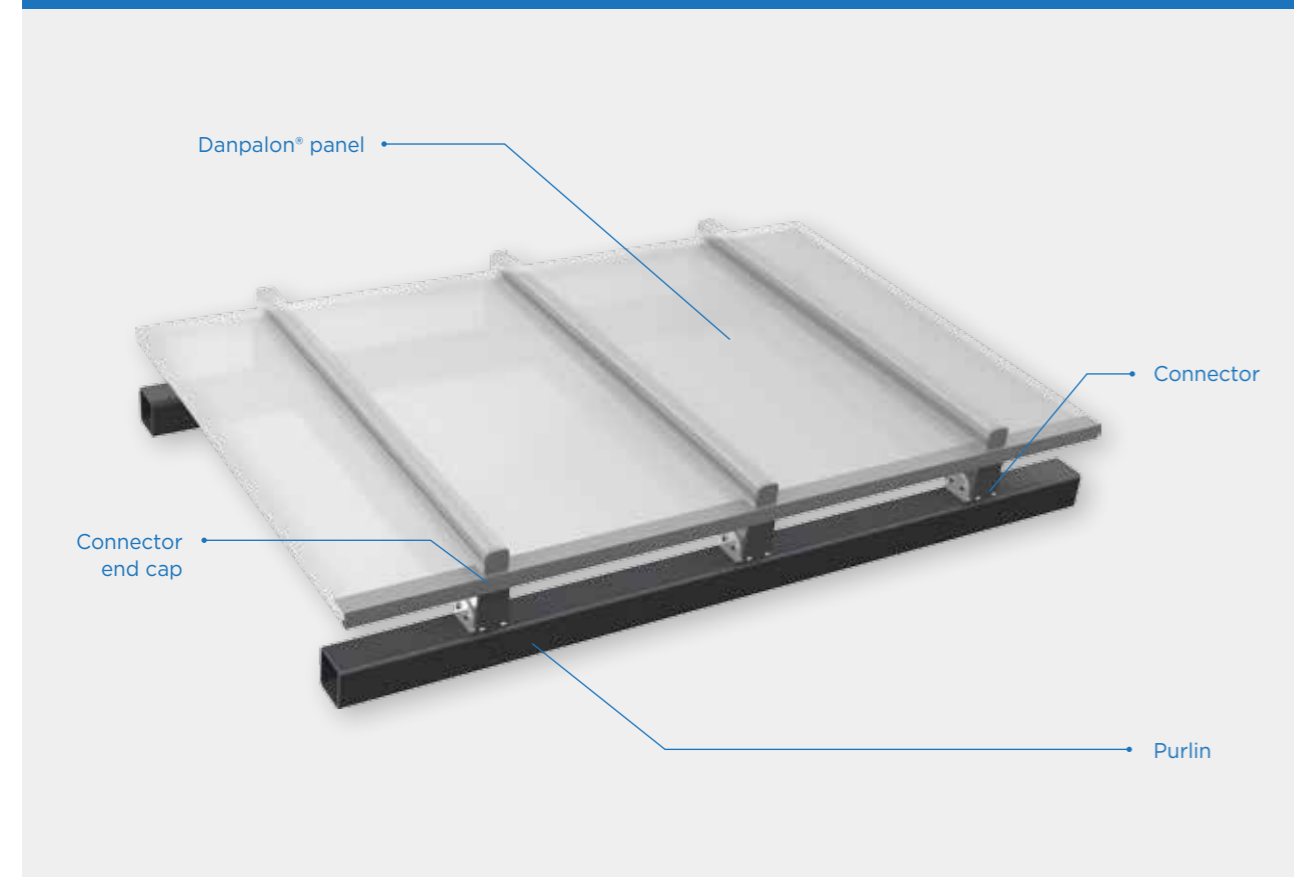
Danpal® offers four types of roofing solutions: Traditional, Spacer, Freespan and Seamless.

There are two different modes of installation for these applications: The exterior mode features the connectors on the outside, while the interior mode features the connectors on the inside.

### SYSTEM BENEFITS

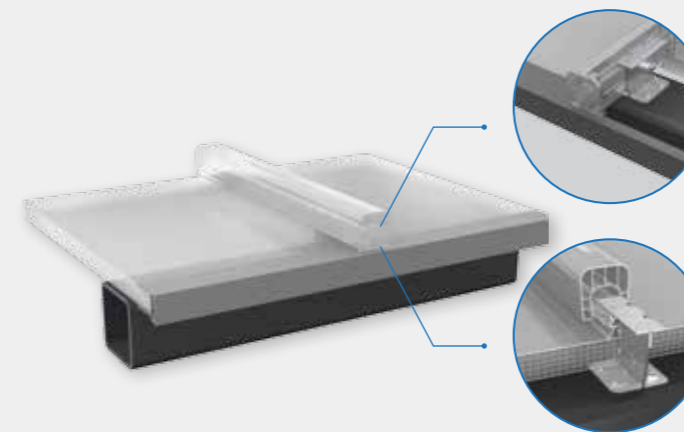
- 100% leakproof
- Lightweight
- Superior light and visual appearance
- Excellent thermal performance
- Superior air and water tightness
- High impact resistance
- Cold bending of panels on site

## STANDARD ROOF INSTALLATION



## SYSTEMS REQUIRING THE EXTERIOR INSTALLATION MODE

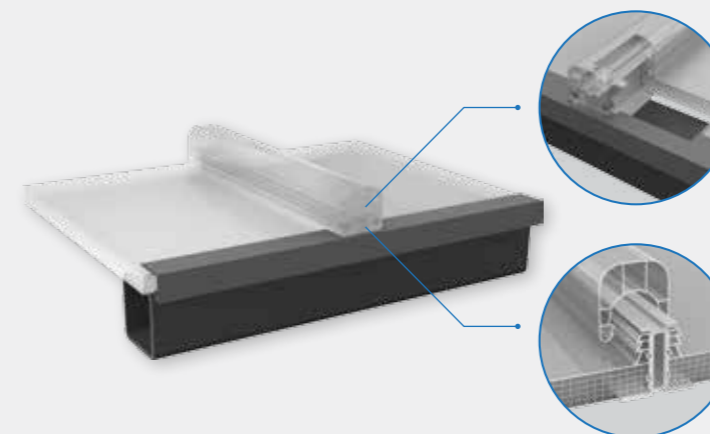
### TRADITIONAL SYSTEM



Centre de maintenance METTIS, Metz, France  
Danpal® Roofing System | Architect: Denu & Paradon

- Polycarbonate or aluminum connector
- Cold curving on site
- No fabrication required
- Attractive appearance due to concealed connectors

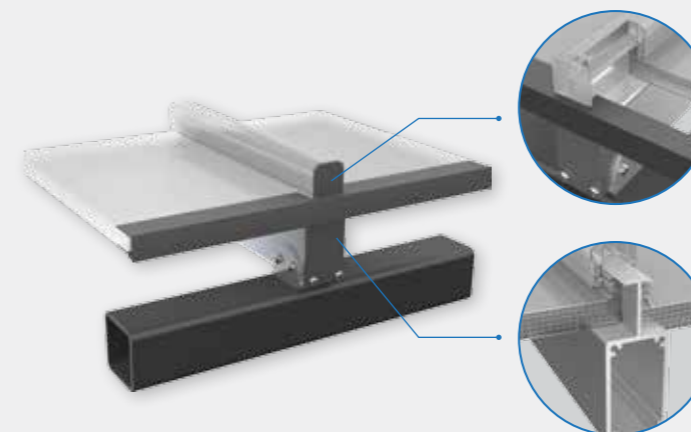
### ALU SPACER SYSTEM



Swimming Pool, Netanya, Israel | Danpal® Roofing System

- Convenient self-supporting system
- Cleaner appearance as framing requirements are reduced
- Simple connection to the building framework

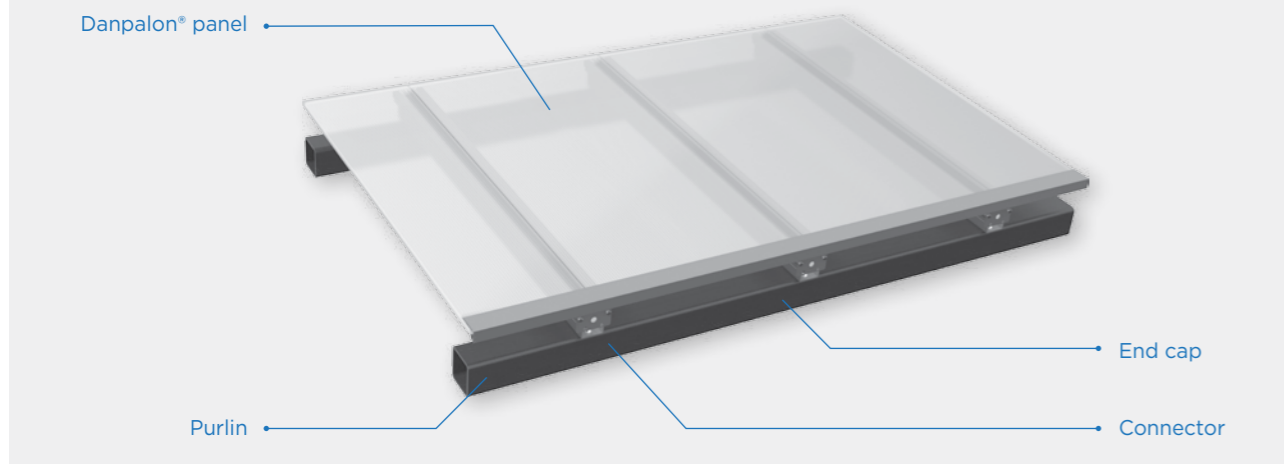
### FREE SPAN SYSTEM



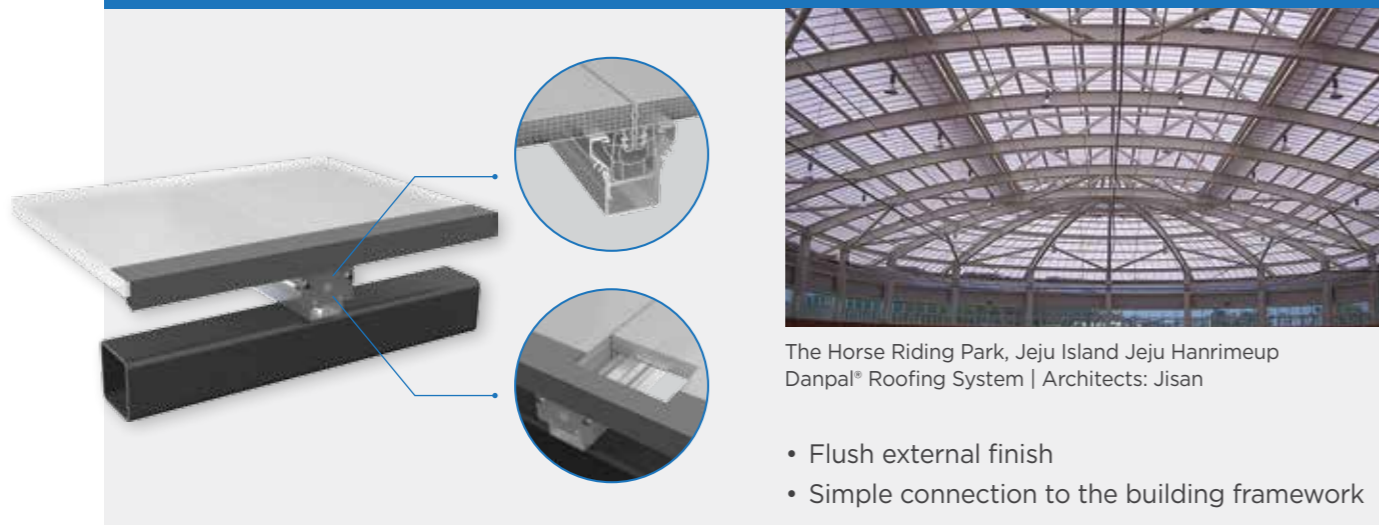
2014 Asian Games Main Stadium, Korea | Danpal® Roofing System | Architects and Construction Heerim Construction, Modern Construction

- Excellent spanning capability
- Clean look from underneath

## REVERSE ROOF INSTALLATION



## SYSTEM REQUIRING THE INTERIOR INSTALLATION MODE



## SUPERIOR LIGHT AND VISUAL APPEARANCE

The panel's unique structure - with tight spacing between the ribs - produces a superior quality of light and an aesthetically pleasing look. Using materials with excellent flexibility, transparency, and tonal qualities compared to glass, Danpal® delivers the perfect balance of light and thermal dynamics. Specifically designed for architectural daylight applications, it is available in various colours and light transmission options with either a glossy or a matt finish.

### HIGH THERMAL INSULATION

The unique cell structure of the panels provides better thermal insulation, resulting in improved 'U' and 'R' values to ensure greater energy efficiency.

### EXTENDED UV PROTECTION

Danpalon® panels offers a co-extruded UV protection that results in longer system life.

### HIGH IMPACT RESISTANCE & STRENGTH

Due to the panel's special cell structure it offers the highest resistance to impact. Extruded with standing seams, the panel's double tooth grip-lock connection ensures longevity in resistance to high winds, snow loads and hail damage.



SYSTEM	Span in (mm) for 100 kg/m <sup>2</sup> wind load single span											
	600			900			1040					
	Panel width (mm)	600			900			1040				
	Panel thickness (mm)	8	10	12	16	22	12	16	22	30	16	
Traditional System	Polycarbonate connector	600	700	800	900	1000	N/A	900	1150	1600	850	
	Alu U HD	1,900			1,550			1,400				
	Alu U 5	3,200			2,600			2,450				
ALU Spacer System		1,100	1,150	1,200	1,300		950	1,100			1,000	
Freespan BAR System	Freespan 50		2,550	2,550	2,600		2,100	2,100			1,950	
	Freespan 60	2,900	2,900									
	Freespan 70	3,350	3,350									
	Freespan 80		3,700	3,700			3,000					
	Freespan 100				4,400			3,600			3,350	
	Freespan 150				6,000			5,000			4,650	
'Seamless' (or Reverse) Installation	Expansion connector	1,450			1,200			1,100				

Aluminium alloy is 6063 T5  
Safety Factor is 1.5  
Deflection criteria is span / 50 and no more than 50mm.

## SPECIFICATION

	MC/HC 8mm	MC/HC 10mm	MC/HC 12mm	MC 16mm	MC 22mm	HC 30mm
U Value (w/m <sup>2</sup> c°) EN ISO 10211, 100772-2 and 6946	3.0	2.6	2.4	1.9	1.5	1.4
Min Cold Bending Radius (mm)	2000	2500	2600	2900	3500	4200
Panel Width (e.g. 600mm) Installed Module Width (e.g. 602mm)	600	600	600/900	600/900 /1040	600/900	900
Minimum slope from the horizontal	5°	5°	5°	5°	5°	5°
Sound Absorption dBA	17	21	21	21	21	N/A

## COLOUR YOUR ATMOSPHERE WITH THE DANPAL® PALETTE



## ABOUT THE COMPANY

### Innovative light architecture systems for building envelopes

Danpal® are creators of exceptional light-transmitting architectural systems for building envelopes, providing optimal solar and thermal comfort.

For over 30 years, our innovative systems have helped architects to transform light (both natural and artificial) into a powerful and versatile tool, for architectural creations that are internally and externally radiant.

An industry visionary, Danpal® are originators of the Danpalon® translucent panel standing seam system - a light architecture solution used around the world in commercial, education, transport, health, sports and high-tech projects.

Today, the company offers complete systems - providing total solutions for the building envelope. Danpal® designs, manufactures and distributes an unmatched range of daylighting systems for all types of building requirements - from facades, cladding, roofs, skylights, shading, to interior and outdoor applications.

Danpal® systems are built around innovative technologies, deep architectural know-how and the ever evolving needs of our clients. Operating in five continents, Danpal® inspires architectural creativity with its rainbow of light architecture solutions.

### Danpal® Roofing System are an integral part of Danpal's range of systems - giving you a complete solution



FACADES



CLADDING



SKYLIGHTS



OUTDOOR



SHADING



INTERIOR

[www.danpal.com](http://www.danpal.com)

**Danpal®**  
Light Architecture